

**AMENDMENTS TO THE CLAIMS:**

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently Amended) A method for analyzing a ground structure, said method comprising:

positioning ~~three~~ a plurality of microseismic oscillation wave sensors for defining a substantially equilateral triangular configuration and so that there is a sensor at each of at least 3 measurement points within an area at ground level[.]);

~~for simultaneously measuring~~ microseismic oscillations at said measurement points to obtain data generated by said microseismic oscillations, said data including horizontal oscillation data and/or vertical oscillation data;

changing the locations of said measurement points;

repeating the measurements; ~~and~~

analyzing the obtained oscillation data; and

determining a direction of origin of the microseismic oscillations from the measured oscillation data.

2. (Previously Presented) The method according to claim 1, wherein said microseismic oscillations to be measured are short-period microseisms observed at ground level.

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3. (Previously Presented) The method according to claim 1, wherein two sensors are disposed on each of at least two straight lines passing through the ground to be measured, and a 360 degree azimuth is divided into an even-number of equal sections or straight lines parallel thereto such that sensor-to-sensor distances are equal on said straight lines.

4. (Previously Presented) The method according to claim 1, wherein said sensors are positioned at least a total of four points, including at least three points at equal spacings on a circumference of a circle, and at one point at a geometric center of the circle.

5. (Previously Presented) The method according to claim 1, wherein said sensors are positioned at least a total of four points, including at apices of a regular triangle, and at a geometric center of said triangle.

6. (Previously Presented) The method according to any of claims 1 to 5, further comprising:

analyzing one of vertical oscillation data and both vertical and horizontal oscillation data, as measured simultaneously with said sensors;

determining whether the microseismic oscillations detected by said sensors are, or are not, surface waves; and

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extracting and analyzing the surface waves.

7. (Currently Amended) The method according to any of claims 1 to 5-6,  
further comprising:

analyzing a correlation coefficient and phase difference of oscillation  
data, as measured by equally spaced sensors for each;

performing repeated analyses at varying sensor-to-sensor distances;

analyzing and computing a fundamental mode of surface waves, based  
on results of the respective analyses; and

analyzing and computing higher-mode wave-lengths.

8. (Currently Amended) The method according to any of claims 1 to 5-7,  
further comprising repeatedly performing measurement and analysis of said  
microseismic oscillations until existence of a relation between phase velocity  
and wavelength is alternatively established or refuted, such that when a relation  
is established therebetween, an inference of an accurate assessment of ground  
structure can be made.